REMARKS

Claims 1- 11 are pending and stand rejected.

Claims 1-6 are withdrawn.

Claim 7 has been amended to clearly state that the PVDF powder is a blend containing a) PVDF having chain ends derived from the persulfate, along with b) a surface-active agent, c) sodium acetate, and optionally d) potassium alkylsulphonate. As previously written it could appear that the sodium acetate was actually part of the PVDF polymer, whereas it is clear from the Specification and claim 6 that it is added after the polymer is formed. Likewise, the chain ends refer to the ends of the PVDF polymer and thus are placed in the claim directly following the polymer

Claim 7 has been amended to more clearly point out that a surface-active additive is a required element of the claim, and that its presence is at a level of less than 300 ppm.

The amendments to the claims were made in Applicant's Response After Final on October 31, 2005, but were not entered, as the Examiner has said that a new consideration and/or search is thereby required. Applicant requests that these amendments now be entered and considered by the Examiner, along with the remarks below.

Applicant further requests that the Remarks entered in the application on October 31, 2005 in response to the Final Rejection be entered and considered in this case.

OBVIOUSNESS-TYPE DOUBLE PATENTING

The Examiner sustains the ODP rejection. Such a rejection is improper as the obviousness reference was filed on the same day in the US, and the priority French applications of both the cited reference and the present application were also filed on the same day. One cannot be cited for obviousness based on a patent application filed on the same day as the present application.

Claims 7-11 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-6 of copending Application 10/791,226. This obviousness-type double patenting rejection is improper, as both the present

application and US application 10/791,226 were filed on the same day (March 2, 2004) in the US, and each is based on a French priority document (FR 03.02531 and 03.02532) which were also filed on the same day (March 3, 2003), and therefore neither can be prior art against the other.

Response to the Examiner's comments in the Advisory Action and 35 USC §103(a) response:

The present case is being rejected under 35 U.S.C. §103 over the US 4,025,709 reference in light of the Sharma US 6,462,109 reference for two main reasons:

1. The '709 reference prepares PVDF polymers using fluorinated emulsifiers, potassium persulfate initiator and sodium persulfate buffer. The '709 reference makes no mention of lowering the residual surfactant level to below 300 ppm. The '109 reference teaches a surfactantless polymerization system for use with many monomers (but not flouromonomers).
2. Applicant had argued that the '109 reference does not apply to fluoropolymer systems. The Examiner in the Advisory action points out that the '109 surfactantless system is applied to monomers that can be copolymerized with fluoropolymers.

General

Applicants amended Claim 7 cites that the PVDF composition comprises the PVDF with chain ends from the persulfate initiator, sodium acetate, surface-active additive at less than 300 ppm, and optionally potassium alkylsulphonate. The inclusion of the surface active agent is not optional. According to the MPEP 2111.03, the phrase "comprising" is synonymous with "including", "containing" or "characterized by", and comprising is a term of art used in claim language which means that the named elements are essential. The surface active agent IS PRESENT at a level below 300 ppm, but above zero – as it is an essential element.

Applicants have stated, on page 5, lines 8-10 that the surfactant is necessary for the polymerization of PVDF. The Invention relates to solving the problem of a thermally stable PVDF. As stated on page 3, lines 8-9, it was found that the content of surface-

active additive should be less than 300 ppm by weight with respect to the PVDF to avoid a deterioration in the heat stability.

1. The presence of the surfactant in the PVDF at a level of below 300 ppm is not taught or suggested by either '109 or '709 references! The Examiner contends that the '709 reference is silent on the residual level of surface active agent. Applicant disagrees. While the '709 reference does not state a range (since the problem to be solved – heat stability related to the surfactant- was not recognized), it clearly describes a process in examples 1, 2, and 3 of adding 0.6 gram (550 ppm), 1.2 gram (1100 ppm) and 2.4 grams (2200ppm) of sodium salt of perfluorooctanoic acid (a surface-active additive), without describing any step for the removal of said surfactant – thus the surfactant remains on the polymer at levels far above the 300 ppm maximum claimed by Applicant. Applicant contends that the examples of the '709 refernce clearly teach high levels of surface-active additive, and therefore are not silent, as the Examiner contends. The '709 reference did use sodium acetate to improve the thermal stability of PVDF, but it did not recognize the contribution to thermal instability from the surface active agent. Not only does this '709 surface-active agent teaching not teach or suggest Applicant's claim limitation, but it teaches away from Applicant's claim limitation. One of skill in the art would not be motivated to practice Applicant's claims based on the teaching of '709 which fails to recognize Applicant's solved problem, and teach away from Applicant's claims by teaching only levels of surface-active additive far above those claimed by Applicant.

The '109 reference teaches only a surfactantless system. Applicant's require the use of a surfactant, and low level of that surfactant remain in the PVDF composition at below 300 ppm, even after the washing steps. One in the art would not be motivated to use the surfactant system of Applicant's claims from a teaching of a surfactantless system. The '109 teaching of NO surfactant, does not suggest to one in the art a composition having LOW (less than 300 ppm) level of surfactant.

2. Since the '109 reference teaches NO surfactant, clearly teaching away from Applicant's claimed low surfactant, the point of whether or not the '109 method could even be used to produce a fluoropolymer is really mute. However, for the sake of fully

addressing the Examiner's issues, a short discussion of fluoropolymer synthesis will be entertained. There is a reason why the '109 patent did not list even one fluoromonomer in the lists of useful monomers and family of monomers in column 8, lines 50 to column 9, line 22. Flouromonomers are not typical ethylenically unsaturated monomers, but are quite atypical, and unreactive with few monomers that are not also flouromonomers. Fluoromonomers and fluoropolymers are difficult to keep in aqueous solutions and require surface-active agents. The Examiner contends that the Blaise ('709) reference lists comonomers polymerizable with VDF, and those same comonomers are also found in the Sharma ('109) reference. A close inspection of the comonomers listed in the '709 reference as copolymerizable at small quantities of up to 10% with VDF shows that all are floromonomers, with the exception of ethylene and chloromonomers. Of these, only vinyl chloride and vinylidene chloride are found in both references. Since even these can only be used as minor constituents of the '709 PVDF copolymer, there is no true overlap. The polymer must be at least 90% VDF. Additionally, Applicants list only flouromonomers (page 6 line 21 – page 7, line9) as VDF comonomers. The PVDF copolymers can not be made, nor does the '109 reference suggest they can be made, by the surfactantless system described in the '109 reference.

Since the cited reference fails to present a *prima facie* case of obviousness over the claims, as amended, Applicant believes that the reasons for rejection have been overcome, and the claims herein should be allowable to the Applicant. Accordingly, reconsideration and allowance are requested.

Respectfully submitted,

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